

IN THE CLAIMS:

Please amend the claims as follows:

1. (Previously Amended): A control apparatus for numerical control of a cutting machine comprising a turret which is rotatable about a turret axis and a cutting tool attached to the turret and rotatable about a tool axis, wherein:

an X-axis value ($L2r$) of a cutting edge of said cutting tool when said cutting tool is rotated about said tool axis to a tool rotation angle (β) is calculated according to the equation of $L2r = L2 \cdot \cos\beta$; and

an X-axis offset value (ΔXr) and a Z-axis offset value (ΔZr) when said turret is turned to a turret rotation angle (α) are calculated according to the following equations 3 and 4, wherein said X-axis offset value (ΔXr) after the rotation of said cutting tool and said Z-axis offset value (ΔZr) after the rotation of said cutting tool are indicated on a display;

$$\Delta Xr = (\Delta Az \cdot \cos\alpha - \Delta Axr \cdot \sin\alpha) \times 2 \quad (\text{Equation 3})$$

$$\Delta Axr = L2r + L4$$

$$\Delta Az = L1 + L3$$

$$\Delta Zr = -\Delta Az \cdot \sin\alpha - \Delta Axr \cdot \cos\alpha \quad (\text{Equation 4}),$$

wherein $L1$ is a Z-axis value of the tool, $L4$ is an X-axis value of the turret and $L3$ is a Z-axis value of the turret.

2. (Original): A control apparatus according to claim 1, wherein an X-axis wear compensation value (ΔXt) and a Z-axis wear compensation value (ΔZt) are indicated in relation to said X-axis offset value (ΔX) and said Z-axis offset value (ΔZ).

3. (Previously Amended): A control apparatus according to claim 1, wherein when said

turret is turned to a turning angle (α), an X-axis value of the tool (L2), a Z-axis value of the tool (L1), an X-axis value of the turret (L4) and a Z-axis value of the turret (L3) are converted according to the following equations to calculate said X-axis offset value (ΔX) and said Z-axis offset value (ΔZ);

$$\Delta X = (\Delta Az \cdot \cos\alpha - \Delta Ax \cdot \sin\alpha) \times 2 \quad (\text{Equation 1})$$

$$\Delta Ax = L2 + L4$$

$$\Delta Az = L1 + L3$$

$$\Delta Z = -\Delta Az \cdot \sin\alpha - \Delta Ax \cdot \cos\alpha \quad (\text{Equation 2}).$$

4. (Previously Amended): A control apparatus according to claim 2, wherein when said turret is turned to a turning angle (α), an X-axis value of the tool (L2), a Z-axis value of the tool (L1), an X-axis value of the turret (L4) and a Z-axis value of the turret (L3) are converted according to the following equations to calculate said X-axis offset value (ΔX) and said Z-axis offset value (ΔZ);

$$\Delta X = (\Delta Az \cdot \cos\alpha - \Delta Ax \cdot \sin\alpha) \times 2 \quad (\text{Equation 1})$$

$$\Delta Ax = L2 + L4$$

$$\Delta Az = L1 + L3$$

$$\Delta Z = -\Delta Az \cdot \sin\alpha - \Delta Ax \cdot \cos\alpha \quad (\text{Equation 2}).$$

5. (Cancelled)

6. (Cancelled)

7. (Cancelled)

8. (Cancelled)

9. (Cancelled)